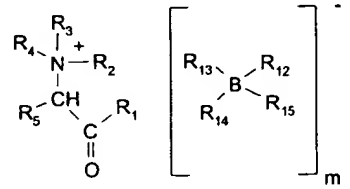
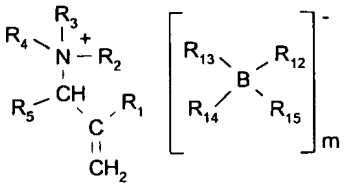
We claim:

1. A photoactivatable coating composition comprising

(A) an activated unsaturated group-containing compound, (B) an activated CH group-containing compound, (C) a catalyst in the form of one or more Lewis or Brönstedt bases, with the conjugated acids of the latter having a pKa of at least 10, and (D) a photoinitiator, wherein the photoinitiator is a photolatent base.

2. A coating composition according to claim 1, wherein the photolatent base is selected from

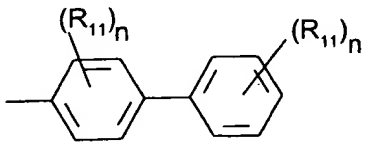
1) α-ammonium, α-iminium or α- amidinium salts of formula (I) or (II)


(I),

(II),

wherein

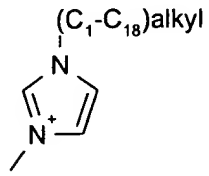
m is 1 or 2 and corresponds to the number of positive charges of the cation;

R_1 is phenyl, naphthyl, phenanthryl, anthracyl, pyrenyl, thienyl, thianthrenyl, thioxanthyl, fluorenyl or phenoxazinyl, these radicals being unsubstituted or mono- or polysubstituted with C_1-C_{18} alkyl, C_3-C_{18}-alkenyl, NR_6R_7, OH, CN, OR_8, SR_8, $C(O)R_9$, $C(O)OR_{10}$ or halogen, or R_1 is a radical of formula A

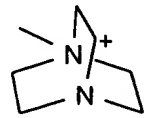

(A),

R_2, R_3, and R_4 each independently are hydrogen, C_1-C_{18} alkyl, C_3-C_{18} alkenyl or phenyl, or R_2 and R_3 and/or R_4 and R_3 each independently

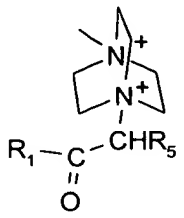
form a C_2-C_{12} alkylene bridge; or R_2, R_3, R_4, together with the linking nitrogen atom, are a group of the structural formula (a), (b), (c), or (d)



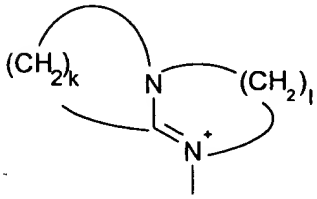
(a),



(b),



(c),



(d),

k and l each independently are a number from 2 to 4;

R_5, R_6, R_7, R_8, R_9, and R_{10} are hydrogen or C_1-C_{18} alkyl;

R_{11} is C_1-C_{18} alkyl, C_2-C_{18} alkenyl, NR_6R_7, OR_8, or SR_8; and

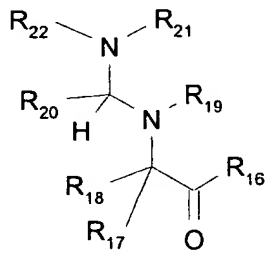
n is 0 or 1, 2 or 3;

R_{12}, R_{13}, and R_{14} are phenyl or another aromatic hydrocarbon, these radicals being unsubstituted or mono- or polysubstituted with C_1-C_{18} alkyl, OR_8, or halogen;

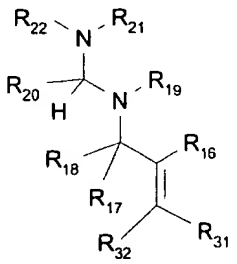
R_{15} is C_1-C_{18} alkyl, phenyl or another aromatic hydrocarbon, the radicals phenyl and aromatic hydrocarbon being unsubstituted or mono- or polysubstituted with C_1-C_{18} alkyl, OR_8, or halogen;

or

2) compounds of formula (III) or (IV)



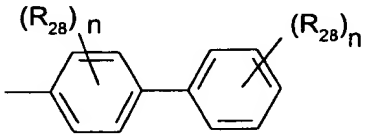
(III)



(IV),

wherein

R_{16} is phenyl, naphthyl, phenanthryl, anthracyl, pyrenyl, thienyl, thianthrenyl, thioxanthyl, fluorenyl or phenoxazinyl, these radicals being unsubstituted or mono- or polysubstituted with C_1-C_{18} alkyl, C_3-C_{18}-alkenyl, $NR_{23}R_{24}$, OH, CN, OR_{25}, SR_{25}, $C(O)R_{26}$, $C(O)OR_{27}$ or halogen, or R_{16} is a radical of formula A



(A),

R_{17} and R_{18} each independently are hydrogen, C_1-C_{18} alkyl, C_3-C_{18} alkenyl, C_3-C_{18} alkynyl or phenyl;

R_{20} is C_1-C_{18} alkyl or $NR_{29}R_{30}$;

R_{19}, R_{21}, R_{22}, R_{23}, R_{24}, R_{25}, R_{26}, and R_{27} are hydrogen or C_1-C_{18} alkyl;

R_{28} is C_1-C_{18} alkyl, C_2-C_{18} alkenyl, $NR_{23}R_{24}$, OR_{25}, or SR_{25}; and R_{29} and R_{30} each independently are hydrogen or C_1-C_{18} alkyl; or

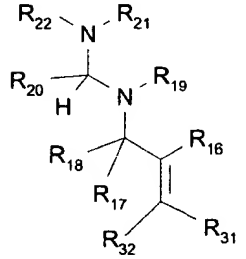
R_{19} and R_{21} together form a C_2-C_{12} alkylene bridge or

R_{20} and R_{22} together, independently of R_{19} and R_{21}, form a C_2-C_{12} alkylene bridge or, if R_{20} is $NR_{29}R_{30}$, R_{30} and R_{22} together form a C_2-C_{12} alkylene bridge.

R_{31} is hydrogen or C_1-C_{18} alkyl;

R_{32} is hydrogen, C_1-C_{18} alkyl or phenyl

3. A coating composition according to claim 2, wherein the photolatent base is an α-aminoalkene of the structure (IV),



(IV),

wherein

R_{16} is phenyl;

R_{17} and R_{18} are hydrogen or methyl;

R_{19} and R_{21} together form a C_3-alkylene bridge;

R_{20} and R_{22} together form a C_3-alkylene bridge;

R_{31} and R_{32} are hydrogen.

4. A coating composition according to claim 1, wherein component (D) is present in an amount of from 0.01 to 10 wt.% based on components (A) + (B).

5. A coating composition according to claim 1, wherein component (C) is present in an amount of from 0.01 to 10 wt.% based on components (A) + (B).

6. A coating composition according to claim 1, wherein the composition additionally comprises a sensitiser selected from the group of thioxanthones, oxazines, ketocoumarins, rhodamines, benzophenone, and derivatives thereof.

7. A coating composition according to claim 6, wherein the sensitiser is selected from the group of benzophenone and derivatives thereof.

8. A coating composition according to claim 1, wherein (C) is 1,8-diazabicyclo-[5,4,0]-undec-7-ene.

9. A coating composition according to claim 1, wherein the compound with an activated CH group is an oligomeric or polymeric malonate compound and/or an acetoacetate group-containing compound.

10. A coating composition according to claim 9, wherein the malonate compound is a polyurethane, a polyester, a polyacrylate, an epoxy resin, a polyamide or a polyvinyl resin with malonate groups in the main and/or side chain.

11. A coating composition according to claim 1, wherein (A) and (B) are present in an amount such that the ratio of the number of activated CH groups to the number of activated unsaturated groups is in the range of about 0.25 to about 4.0.

12. A coating composition according to claim 11, wherein (A) and (B) are present in an amount such that the ratio of the number of activated CH groups to the number of activated unsaturated groups is in the range of about 0.5 to about 2.0.

13. A coating composition according to claim 1, wherein (C) and (D) are present in an amount such that the weight ratio of (C) to (D) is in the range of about 0.1 to about 2.5.

14. A coating composition according to claim 1 wherein the coating is applied to a substrate and subsequently the substrate is exposed to UV light.

15. Use of a coating composition according to claim 1 in car repair.